

# LONG ISLAND BOTANICAL SOCIETY NEWSLETTER

September - October 1992 Vol. 2, No. 5

## GUIDE TO THE GOLDENRODS OF LONG ISLAND, NEW YORK

by,

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**INTRODUCTION.** Goldenrods were formally included in the genus *Solidago* by Carl Linnaeus in 1753. The scientific name is from the Latin *solidus*, meaning "to make whole or strengthen;" probably in reference to medicinal properties described by ancient herbalists. In 1818 Thomas Nuttall first split out a distinct subgroup of goldenrods (which included species with resin-dots on narrow leaves and a flat-topped inflorescence), and proposed a new genus *Euthamia*. Traditionally, taxonomists have included *Euthamia* as a distinct section within *Solidago*; recently, however, many synantherologists (botanists who study composites, including goldenrods) recognize the distinct genus *Euthamia*.

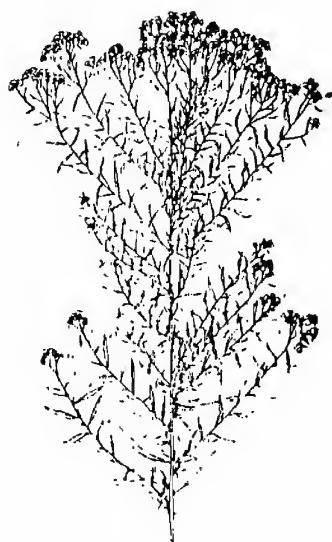
The genus *Solidago* consists of about 100 species in North America, 28 species in New York, and 19 species on Long Island. The genus *Euthamia* consists of about 6 species in North America and 3 species in New York, all of which have been reported from Long Island. Only four species of *Solidago* and only one species of *Euthamia* occur in all of Europe, north Africa, and western Asia.

The goldenrods as a group are easy to recognize, and some species are also fairly distinctive. But most species are separated by technical characteristics (because features of the leaves, stems, and flowers are very variable), often making identification difficult. Even professional botanists do not agree on just how many species there are nor how they may be separated. Moreover, some species certainly hybridize, yielding intermediate plants which add to the confusion. Intergeneric hybrids between *Solidago* and *Aster* also occur and have been placed in the genus *Solidaster* (from the names of the parents).

The following guide to goldenrods has been prepared to help the interested amateur identify the 22 species reported from Long Island. The key is not overly technical. For example, there are over 40 different terms that describe the different types of plant hairs, the key uses only one: "hairy". Conversely, the term "glabrous" technically refers to a surface devoid of all vestiture; the key uses the non-technical term "smooth." Unfortunately, the technical terms are more accurate than the colloquial ones, and therefore the key is imprecise in several areas.

The key is based upon several traditional keys found in major manuals of North America flora. Therefore, after the key to L.I. goldenrods is mastered, the transition to technical keys should be relatively easy.

Since a few unavoidable technical terms are used in the key (inflorescence, involucre, petiole, etc.) reference to other texts and manuals is recommended.



***Euthamia gymnospermoidea* [= *Solidago g.*]**  
a very rare goldenrod from L.I., not recently observed.

Illustration from Fisher (1988).

## PROGRAMS

See back of newsletter for information.

## KEY TO THE GROUPS OF SPECIES

1. Inflorescences axillary:  
flower heads in clusters from axils  
of ordinary foliage leaves..... Group I
2. Inflorescence thyrsoid:  
flower heads in erect, compact, terminal  
clusters; inflorescence cylindrical, longer  
than broad; the branches of the inflorescence  
never in curved, one-sided clusters..... Group II
3. Inflorescence paniculiform:  
flower heads produced on one side only  
of a spreading, usually recurved branch..... Group III
4. Inflorescence corymbiform:  
flower heads forming a flat-topped or  
convex-topped, inflorescence, resembling  
a candelabra or branched candlestick..... Group IV



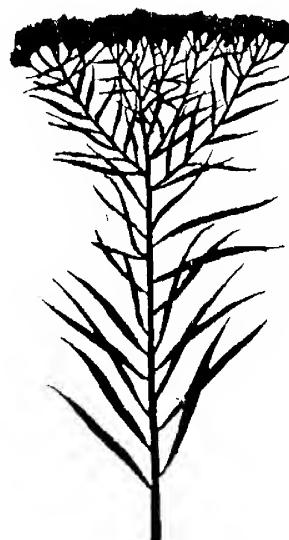
Group I  
Inflorescence



Group II  
Inflorescence



Group III  
Inflorescence



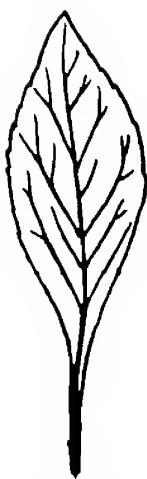
Group IV  
Inflorescence

## GROUP I

A single species (frequent)..... *S. caesia*

## GROUP II

1. Stem hairy..... 2
2. Ray flowers yellow..... 3
  3. Stem finely hairy with minute spreading hairs; bracts of involucre very narrow, less than 0.75 mm wide at midlength (frequent)..... *S. puberula*
  3. Stem coarsely hairy; bracts of involucrume more than 0.75 mm wide at midlength (rare)..... *S. hispida*
2. Ray flowers white (frequent)..... *S. bicolor*
1. Stem smooth..... 4
  4. Lowest leaves narrow, 7-15 times as long as wide; bog plants (infrequent)..... *S. uliginosa*
  4. Lowest leaves' broader, less than 7 times as long as wide; plants of upland habitats..... 5
    5. Inflorescence very narrow; stem-leaves 5-20 mm wide (very rare)..... *S. erecta*
    5. Inflorescence broader; stem-leaves more than 2 cm wide (frequent)..... *S. speciosa*



broad basal leaves      narrow basal leaves      broad inflorescence      narrow inflorescence  
*S. speciosa*                    *S. uliginosa*                    *S. speciosa*                    *S. erecta*

